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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/672,635	09/28/2000	Gary Dan Dotson	00AB148	8217

7590

09/07/2005

Allen-Bradley Company Inc  
Attention: John J Horn  
Patent Dept/704P Floor 8 T-29  
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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT

PAPER NUMBER

2677

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/672,635

Applicant(s)

DOTSON, GARY DAN

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-13,16,17,19,21-23 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,11 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 4, 9-10,12-13,16-17,19 and 25-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This Application has been examined. The claims 1-7,9-13, 16-17, 19, 21-23 and 25-27 are pending. The examination results are as following.

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-7, 11, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prince (US 5,617,113) in view of Muhich et al. (US 4,706,074).

Regarding claims 1, 5 and 21, Prince discloses in fig. 3 that a video controller for interfacing a frame buffer to a dual scan display (126) having a adjacent first (126T) and a second display portions (126B) with a display boundary there between, the video controller comprising a raster engine (LCD) that receives video data from the frame buffer (see memory 114a, 114c) to format the video data and render the formatted data to the dual scan display line by line, and an inherent hardware cursor that selectively overlays a cursor image across the display boundary onto the first and second display portions (because the hardware cursor, that is a image cursor should cross onto the display 126. However, Prince does not disclose the hardware cursor comprises a cursor line buffer that overlays a first portion of the cursor image into a first data path of the raster engine according to a comparison of a first vertical counter value with a first cursor start address and a comparison of a horizontal counter value in the raster engine with a cursor column start value and a cursor image width value in the hardware cursor.

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Muhich et al. discloses in fig. 2, a registers 28, 29 for storing the position of a cursor, values stored in the registers are compared to counter values during scan (the X and Y cursors position 28, 29 are cursors start addresses, see col. 2, lines 63-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using values stored in the registers are compared to counter values during scan the X and Y cursors position 28, 29 are cursors start addresses as taught by Muhich et al. into the dual scan display of Prince because this would provide a desired screen position of the cursor, represent X and Y screen coordinates respectively.

Regarding claims 2, 3, 22, Prince discloses in fig. 3 that the raster engine comprises first data path (124T) and second (124B) data path, the first and second data paths respectively associated with first and second display portions, and the hardware cursor overlays a first portion of the cursor image onto the first display portion and overlays a second portion of the cursor image onto the second display portion if the cursor crosses the display boundary.

Regarding claim 6, Prince discloses that the cursor image crosses the display boundary according to the cursor position.

Regarding claims 7, 23, Prince does not disclose further the method comprising determining first and second portions of the cursor image if the cursor image crosses the display boundary; overlaying the first portion of the cursor image onto the first display portion if the cursor crosses the display boundary; and overlaying the second portion of the cursor image onto the second display portion if the cursor crosses the display boundary. Muhich et al. discloses in figs. 2-3 that first and second portions of the cursor image (28, 29 fig. 2 or 13, 14 fig. 3) if the cursor image crosses the display boundary; overlaying the first portion of the cursor image onto

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the first display portion if the cursor crosses the display boundary; and overlaying the second portion (29 fig. 2 or 14 fig. 3) of the cursor image onto the second display portion if the cursor crosses the display boundary. It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the using of the first and second portions of the cursor crosses the display boundary as taught by Muhich into the system of Prince because this would provide the X and Y screen coordinates respectively and determine whether video formatting is within the range of the cursor.

Regarding claim 11, Prince does not disclose that overlaying the first portion of the cursor image onto the first display portion comprises selectively inserting first portion cursor data associated with the first portion of the cursor image into a first data path of the raster engine according to the comparison of the first vertical counter value with the first cursor start address and the first cursor portion height value and the comparison of the horizontal counter value with the cursor column start value and the cursor image width value. Muhich et al. discloses that overlaying the first portion of the cursor image onto the first display portion comprises selectively inserting first portion cursor data associated with the first portion of the cursor image into a first data path of the raster engine according to the comparison of the first vertical counter value with the first cursor start address (see fig. 2, see X or Y cursors position 28, 29 are cursors start addresses, see col. 2, lines 63-66) and the first cursor portion height value and the comparison of the horizontal counter value with the cursor column start value and the cursor image width value (see fig. 5, see cursor location (X, Y) having height value).

***Allowable Subject Matter***

3. Claims 4, 9-10, 12-13, 16-17, 19 and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

None of the cited art teaches or suggests that a video controller for interfacing a frame buffer to a dual scan display of claim 3, wherein the comparison of the second vertical counter value with the second cursor start address and the second cursor portion height value and the comparison of the horizontal counter value with the cursor column start value and the cursor image width value, if the cursor crosses the display boundary as claim 4; or comparing a second vertical counter in the raster engine with a second cursor start address and a second cursor portion height value in the hardware cursor as claims 9-12; or the comparison of the second vertical counter value with the second cursor start address and the second cursor portion height value and the comparison of the horizontal counter value with the cursor column start value and the cursor image width value as claims 13, 16-17, 19 and 25-27.

***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimnhung Nguyen  
August 29, 2005



ALEXANDER EISEN  
PRIMARY EXAMINER